



Presentation Objectives





- **Data Mart Project Overview**
- **How the Data Mart works** and what it contains
 - Currently
 - Plans for the Future
- **Demonstration of Data Mart Tools**
 - VA ProClarity Analysis Tool
 - Air Force ProClarity **Analysis Tool**
 - Air Force Push Reports
- Feedback/Discussion

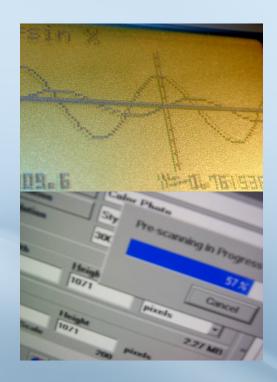


VA/DoD Data Mart Goals/Objectives

- Provide information and analytical support for VA/DoD healthcare planning and medical sharing activities.
- Pilot and test an approach to VA/DoD data integration that is comprehensive, flexible, cost effective, and consistent.
- Develop and deploy a standard data repository integrating both VA and AF data for use in healthcare planning, operations, and collaborative initiatives.
- Create processes and tools that make VA/AF combined data accessible to managers at the national and local levels across both healthcare systems.
- 19 Cachments where AF/VA in close proximity initial focus but all zip codes later added for additional adherenced analysis



How the Data Mart Works



- VA server and data tables in Austin
- AF server and data tables in Falls Church
- Data Use Agreement
- Secure data transfer
 - Secure FTP with Encryption
- Each group (VA/AF) creates separate SQL Databases with combined data
 - Normalization challenges/issues
- Design & Produce of tools from Data Mart



What the Data Mart Contains

- Indirect (Purchased) Care Data Cube
 - Updated quarterly with a one quarter lag
 - Treatment Date Based
 - Lag due to payment date based files
- Direct (In-house) Inpatient Discharges Data Cube
 - Updated quarterly with rolling 24 months
 - Discharge date based
- Direct (In-house) Outpatient Encounters Data Cube
 - Updated quarterly with rolling 24 months
 - Encounter date based
- Staffing Levels by Specialty (Future)
 - Will eventually be updated quarterly
 - Will be snapshot as of end of quarter
- *All cubes currently PHI restricted. Additional security may be imposed!



Indirect (Purchased) Care Data Cube

Dimensions

- VA/DoD Flag
- Age
- Gender
- Cachement→Zip
- Payment Facility
- Beneficiary Cat/Priority
- CPT
- MDC/DRG
- ICD9
- Treatment Date
- Vendor
 - Manual work done to make common across VA/DoD
- Product Line
 - CPT/ICD9 Based on Non Inst.-Much work here
 - MDC Based for Institutional

Measures

- Amount Disbursed
- Authorized Days
- Line Items
- Visits
- Unique Patients



VA Purchased Care Screen

Shots

904

556

4,781

2,783

\$852,262.72

\$145,727.22

\$662,242.31

\$588,217.46

\$43,762.72

\$3,097,453.10

\$869.67



OP-Hematology/Oncology

OP-Ob/Gyn Undifferentiated

OP-Infectious Disease

OP-Lab

OP-Neonatal

OP-Neoplasms

OP-Nephrology

OP-Neurology

Back

FY06 Purchased Care by Product Line & VA/DoD Flag (Langley Cachment)

Amount of Care Treatment Date: FY0 All VA_DoD_Flag DoD Unique Patie Amount Auth Day! Visits Unique Pa Amount Auth Days Visits Unique Patier Amount Auth Day Visits IP-Other \$949,619.02 1.614 133 \$949,619.02 1,614 IP-Nervous System 73 \$578,988.69 426 29 \$161,262.58 106 44 \$417,726.11 320 IP-Eye 3 \$7,663.49 30 3 \$7,663.49 30 IP-Ear, Nose & Throat 10 34 22 \$15,976.68 \$33,314.92 \$17,338.24 3 12 IP-Respiratory System 127 \$760,910,49 814 68 \$336,208.70 409 59 \$424,701,79 405 IP-Circulatory System 228 \$1,929,293.32 1,171 114 \$572,802.12 435 114 \$1,356,491.20 736 59 238 30 151 IP-Digestive System \$375,312.23 389 \$185,018.92 \$190,293.31 IP-Hepatobiliary System & Pancrea 115 \$130,395.64 191 19 \$59,569.38 13 \$70,826.26 76 IP-Musculoskeletal System & Conne \$354,810.11 360 55 \$208,826.19 213 20 \$145,983.92 147 IP-Skin, Subcutaneous Tissue & Br 19 \$46,637.86 88 12 \$20,782.89 63 7 \$25,854.97 25 \$118,990.40 IP-Endocrine, Nutritional & Metab 41 \$185,591.89 169 26 85 15 \$66,601.49 84 47 \$85,709.49 112 \$120,868.55 IP-Kidney & Urinary Tract \$206,578.04 208 28 19 96 IP-Male Reproductive Tract 1 \$4,616.05 1 1 \$4,616.05 IP-Female Reproductive System 12 \$37,769.88 26 12 \$37,769.88 26 IP-Pregnancy, Childbirth & The Pu 181 \$400,633.26 580 160 \$347,231.27 513 21 \$53,401.99 67 \$1,039,694.13 IP-Disorders Of Neonates Orginati 105 \$1,039,694.13 771 105 771 \$22,594,76 IP-Blood, Blood Forming Organs & 8 \$28,255.73 33 5 \$5,660.97 21 3 12 IP-Myeloproliferative & Other Neo 13 \$909.823.28 415 11 332 2 \$721,942.57 \$187,880.71 83 IP-Infectious & Parasitic Disease \$168,948.69 170 18 91 12 \$106,710.53 79 \$62,238.16 IP-Mental Diseases & Disorders 8 \$18,591.85 37 4 \$9,364.52 18 4 \$9,227.33 19 IP-Substance Use & Substance Indu 11 \$29,480.45 33 1 \$1,278.56 2 10 \$28,201.89 31 IP-Injury, Poisoning & Toxic Drug 23 \$68,139.87 80 13 49 10 31 \$31,172.59 \$36,967.28 IP-Burns 2 \$11,240,96 19 2 \$11,240.96 19 3 24 2 \$8,811.54 3 IP-Factors Influencing Health Sta \$10,064.51 21 1 \$1,252.97 IP-Multiple Significant Trauma 3 \$68,571.79 39 2 \$41,614.06 31 1 \$26,957.73 IP-Human Immunodefinciency Virus Infections 1 \$5,226.43 8 \$5,226.43 IP-PRE MDC Transplant \$49,496.44 29 \$49,496,44 Not Defined In Table OP-Allergy 520 \$190,395.48 2,573 462 \$154,547.67 2,208 58 \$35,847.81 365 OP-Cardiology 1,489 \$1,093,532.72 10,213 1,396 \$967,334.77 8,230 93 \$126,197.95 1,983 OP-Dermatology 1,545 \$388,960.07 3,828 1,504 \$334,974.92 2,992 41 \$53,985.15 836 OP-Ear, Nose, Throat 1,319 \$359,077.44 2,897 1,305 \$328,142,38 2,866 14 \$30,935.06 31 OP-Emergency Medicine 1.394 \$772,520.01 6.788 1.372 \$750,401.13 22 \$22,118,88 116 6.672 OP-Endocrinology 840 \$397,591.90 5,225 803 \$340,522.19 3,689 37 \$57,069.71 1,536 4,524 \$604,470.94 6,562 4,470 \$546,284.44 6,395 54 \$58,186.50 167 40 OP-Gastroenterology 1,445 \$1,030,344.09 4,147 1,405 \$985,987.16 3,517 \$44,356.93 630 36 OP-General Medicine 1,165 1,087 1,201 \$460,554.34 4,095 \$364,398.33 3,008 \$96,156.01 OP-General Surgery 705 \$645,285,33 5.152 636 \$558,797.62 4.155 69 \$86,487,71 997 OP-Gynecology

3,865

1,284

3.868

512

37.515

387

10

824

511

160

466

2.476

4,390

\$737,382.72

\$117,452.77

\$438,900.83

\$199,793.57

\$42,831.42

\$2,366,252.78

\$869.67

3,100

1,166

2,712

28,481

2

10

80

45

391

307

3

\$114,880.00

\$28,274.45

\$223,341.48

\$388,423.89

\$731,200.32

\$931.30

765

118

1,156

9,034



AF Purchased Care Screen **→** ★ ★ ★





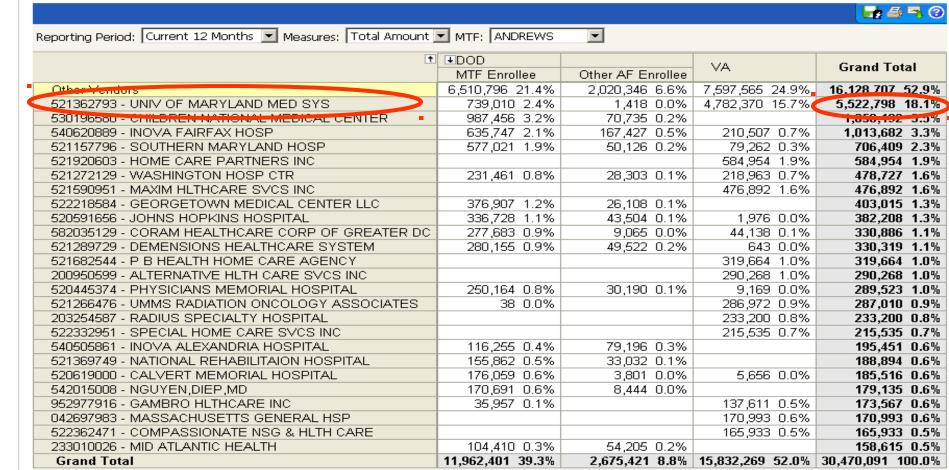
DODVA - DATA MART DEMO

Dashboard

General ▶ Outpatient ▶ Inpatient ▶

Welcome Back

Top 25 Vendors





Dimensions

- VA/DoD Flag
- Age
- Gender
- Cachement→Zip
- Treatment Facility
- Beneficiary Cat/Priority
- MDC/DRG
- Principal ICD9
- Discharge Date
- Product Line→Work Unit
 - Based on MEPRS code for AF
 - Based on Disch Bedsection for VA
 - Crosswalk to common Product Lines

Measures

- Discharges
- Total Length of Stay (Days)
- Avg Length of Stay
- Unique Patients



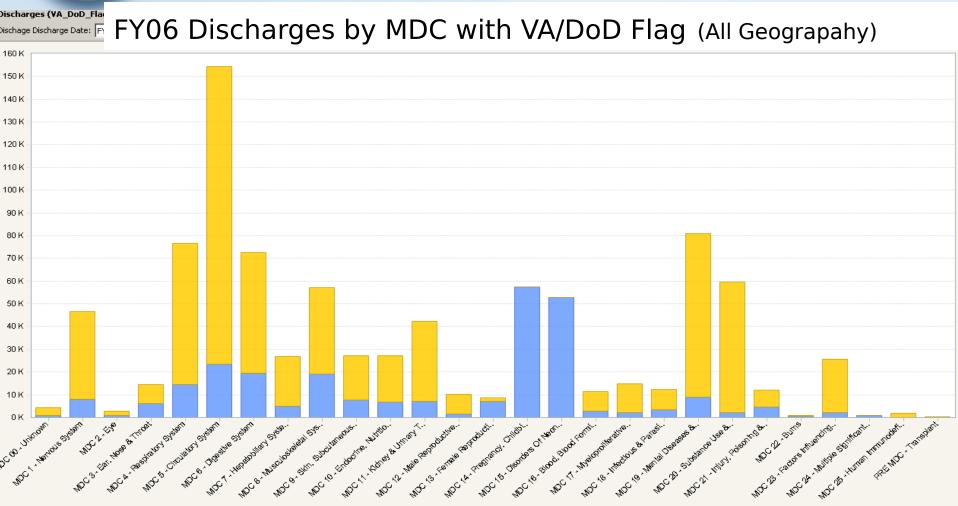
1.002

3.439

38,701

1.941

VA Direct Inpt Discharges



MDC Description

DoD VA

MDC 00 - Unknown | MDC 1 - Nervous System | MDC 2 - Eye | MDC 3 - Ear, Nose & Throat | MDC 4 - Respiratory System | MDC 5 - Circulatory System | MDC 6 - Digestive System | MDC 7 - Hepatobiliary System & Pancrea

14,473

62.033

23,465

131.081

19,490

53,209

4,902

22,117

6,273

8.225



AF Direct Care Inpt-Top 25





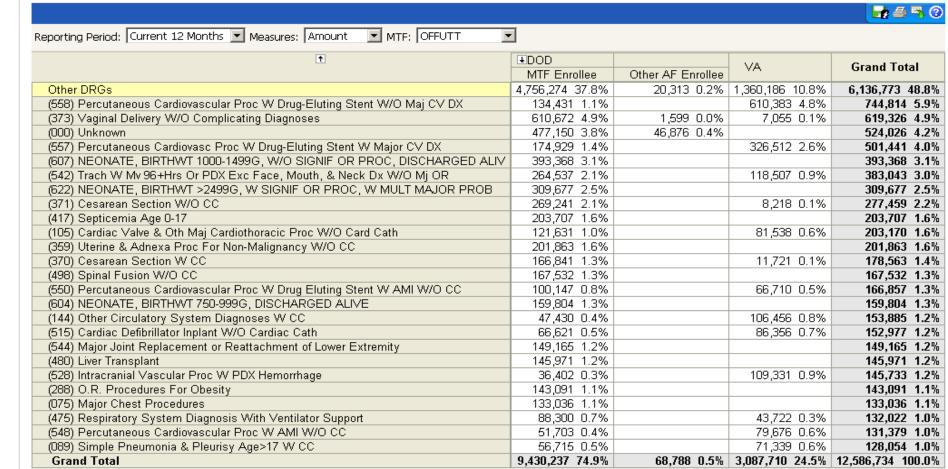
DODVA - DATA MART DEMO

Dashboard

General ▶ Outpatient ▶ Inpatient ▶

Welcome Back

Inpatient - Top 25 DRGs





AF Direct Inpatient Product



DODVA - DATA MART DEMO

Dashboard

General ▶ Outpatient ▶ Inpatient ▶

Welcome Back

Inpatient Expenditures - Grid

				- Land American (1997)
Reporting Period: Current 12 Months 💌 Measu	ires: Amount	MTF: NELLIS	•	
1	DOD			
(†)	MTF Enrollee	Other AF Enrollee	VA	Grand Total
■Blood, Blood Forming Organs &	109,412 0.7%		24,653 0.1%	134,065 0.8%
₽ Burns	·		5,840 0.0%	5,840 0.0%
■ circulatory System	1,227,273 7.4%	912 0.0%	2,443,313 14.8	3,671,498 22.2%
■ Digestive System	441,827 2.7%		288,112 1.7%	729,938 4.4%
■ Disorders Of Neonates Orginati	773,094 4.7%			773,094 4.7%
LEar, Nose & Throat	11,309 0.1%		15,364 0.1%	26,673 0.2%
■Endocrine, Nutritional & Metab	168,135 1.0%		63,900 0.4%	232,035 1.4%
 Eye	3,109 0.0%		4,989 0.0%	8,098 0.0%
	10,731 0.1%		17,364 0.1%	28,095 0.2%
	156,095 0.9%			156,095 0.9%
	483,719 2.9%		174,264 1.1%	657,984 4.0%
■Human Immunodefinciency Virus Infections				
Infectious & Parasitic Disease	249,874 1.5%		181,456 1.1%	431,330 2.6%
■Injury, Poisoning & Toxic Drug	109,808 0.7%		38,271 0.2%	148,079 0.9%
	146,522 0.9%	2,244 0.0%	192,153 1.2%	340,919 2.1%
■Male Reproductive Tract	14,942 0.1%			14,942 0.1%
	3,329 0.0%		26,027 0.2%	29,356 0.2%
 Multiple Significant Trauma	127,245 0.8%		•	127,245 0.0W
■Musculoskeletal System & Conne	1,766,437 10.7%		914,018 5.5%	2,680,455 16.2%
■Myeloproliforation 9 Other Neo	250,146 1.5%		360,798 2.2%	640,044 3.7%
	707,066 4.3%	952 0.0%	261,478 1.6%	969,496 5.9%
 ■Other	1,951,782 11.8%	68,152 0.4%	406,700 2.5%	2,426,635 14.7%
■PRE MDC Transplant				
Pregnancy, Childhigh & The Pu	257,817 1.6%	8,861 0.1%	29,696 0.2%	296 373 18%
■ Respiratory System	998,842 6.1%	5,058 0.0%		1,913,467 11.6%
B Skin, Subcutaneous Tissue & Br ■	33,599 0.2%		52,888 0.3%	86,487 0.5%
 ■ Substance Use & Substance Indu	2,529 0.0%		2,450 0.0%	4,979 0.0%
Grand Total	10,004,641 60.6%	86,180 0.5%	6,413,301 38.9%	16,504,122 100.0%



Direct Outpatient Encounters Cube

Dimensions

- VA/DoD Flag
- Age
- Gender
- Cachement→Zip
- Treatment Facility
- Beneficiary Cat/Priority
- Principal ICD9
- Encounter Date
- Product Line→Clinical
 Svc Line
 - Based on MEPRS code for AF
 - Based on Stop Code for VA
 - Crosswalk to common Product Lines and Clinical Service Lines

Measures

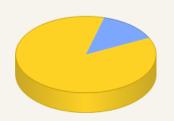
- Encounters
- Unique Patients

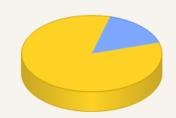


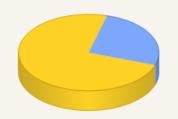
VA Direct Outpt Encounters

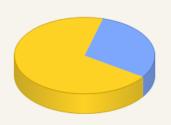
Patient Geography: Andrews

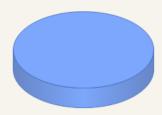
Encounters by Product Line VA/DoD Flag (Andrews Cachment)











Extended Care

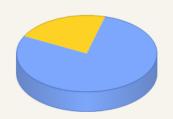
Medicine

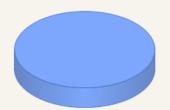
Pediatrics

Rehab and Physical Medicine

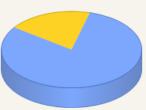
Surgery











DoD UA

	Administration	Ancillary	Behavioral Health	Dental	Distinctive Programs	Extended Care	Medicine	Pediatrics	Rehab and Physical Medicine	Surgery
DoD	2,824	139,394	215,894	17,119	62,475		2,907,832	411,914	542,307	867,679
VA	18,098	726,162	609,562	39,407		35,317	799,152		107,506	206,681



Decomp Tree - Custom Drill Down

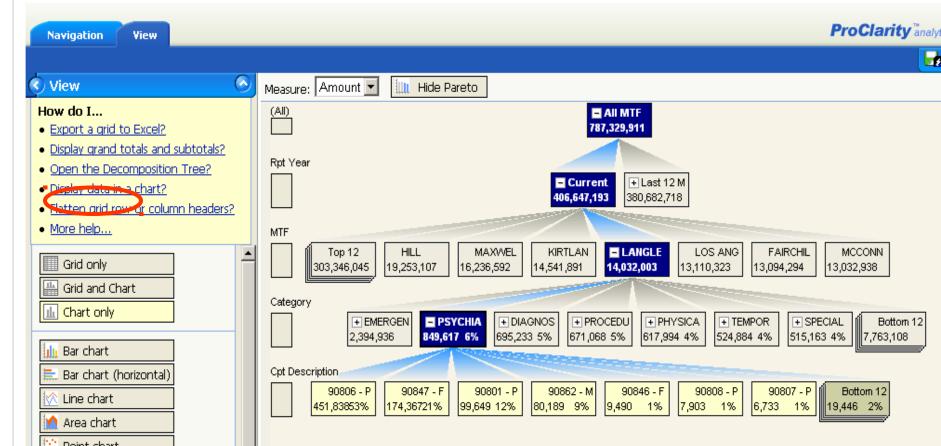


DODVA - DATA MART DEMO

Dashboard

General > Outpatient > in General > Outpatient > in General >

Outpatient - Tree View





CPT View from Decomp

Tree



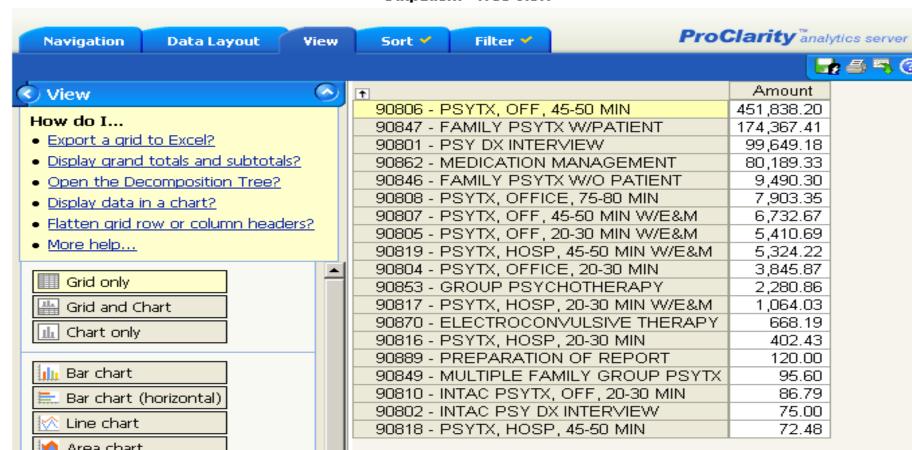
DODVA - DATA MART DEMO

Dashboard

General ▶ Outpatient ▶ Inpatient ▶

Welcome Back

Outpatient - Tree View





AF Push Report



Air Force - Veteran's Health Administration 0120 - LANGLEY AFB Market Area Opportunity Identification Report - March 2007



Opportunity Identification

Expanding resource sharing opportunities is the goal for both the DoD and the VA. One way to approach opportunity identification is to look at market share. If there is a relatively close split for a common service, with high cost associated, it may be a candidate for joint services purchase with a common vender, a DoD/VA internal-external resource share, or a new service initiation between the two federal departments. Included in the analysis is care rendered in the 40/20 mile area surrounding the Air Force facility, which can be expanded/reallocated to create a federal market area.

AF/VA Private Sector Expenditures and Market Share

The pie chart shows the total expenditures for the previous 12 months. Private Sector Care claims lag approximately 3 months



Inpatient	Unique Patients	<u>Total</u> Expenditure	PMPY /PUPY
MTF Enrollee	596	2,935,105	4,925
Other AF MTF Enr	5,861	32,303,182	5,512
Outpatient			
MTF Enrollee	11,168	10,767,032	964
Other AF MTF Enr	687	376,717	548
VA	1,719	4,022,891	2,340

Market Share is tracked as the percentage each department contributes the risk pool. Market Share = Air Force Expenditures + VA Expenditures. The table above shows the cost per unique patient seen in the Private Sector. These reflect expenditures across all product lines.

	AF	VA	Total
SENTARA - 541547408	2,257,074.25	145,630.05	2,402,704.30
	20.25%	3.62%	15.84%
MARY IMMACULATE	618,048.38	39,450.26	657,498.64
HOSPITAL INC - 540548200	5.55%	0.98%	4.34%
RIVERSIDE - 521245746	495,054.95	117,397.66	612,452.61
	4.44%	2.92%	4.04%
VIRGINIA ONCOLOGY	441,060.60	2,573.08	443,633.68
ASSOCIATES PC -	3.96%	0.06%	2.93%
DAVITA INC - 232536597	33,418.99	352,660.90	386,079.89
	0.30%	8.77%	2.55%
SLEEP DISORDER	367,719.98	0.00	367,719.98
CENTERS HR - 541968877	3.30%		2.42%
CHILD HSP OF THE KING	300,019.46	0.00	300,019.46
DAUGHTER HEALTH SYS -	2.69%	0.00%	1.98%
MIDDLEBORO SKILLED	0.00	272,250.00	272,250.00
CARE - 020576752	0.00%	6.77%	1.80%
PEDIATRIC SERVICES OF	242,117.77	0.00	242,117.77
AMERICA INC - 581584862	2.17%	0.00%	1.60%
PENINSULA EMERGENCY	212,858.29	5,927.94	218,786.23
PHYS - 541099223	1.91%	0.15%	1.44%
Others	6,176,376.16	3,087,001.37	9,263,377.53
	55.42%	76.74%	61.08%
Total	11,143,749	4,022,891	15,166,640
	100.00%	100.00%	100.00%

The Vendor Name is based on the provider fax ID which can represent a collection of hospitals, medical groups, clinics, service organizations, and individual physicians.

How to Interpret this Information

Information contained in this report is organized by section. Section 1, provides an understanding of the concept of joint opportunity identification, the geographic representation of the area and costs. Section 2, breaks down each product line, it's expenditure contribution and whether it is inpatient or outpatient care. Section 3 identifies top expenditures by vendor. Future Sections will include an over time trend of expenditures.

This report contains information that must be protected IAW the Privace Act of 1974 (6 U.S.C. § 652a), which includes Public Law 100-503, DODG

6400.11, and DoD 6400.11-R, and is FOR OFFICIAL USE ONLY



Executive Summary of both "Market Share" and "Expenditures." The chart shows the market share of both the Air Force and VA in terms of total expenditure in this market area.



Sections 2 and 3 of this report provide information about what kind of care was purchased, who rendered the care, what are the major procedures purchased over a 12-month rolling period, where they are located relative to the market area. The ability to look for leveraged buy or service consideration within both the DoD and among other federal government providers and purchasers (i.e. VA, Indian Health Service, etc.)



Questions To: Customer Service at 202-767-5040 (com) 297-5040 (DSN)



Known Uses of Data Mart

Joint planning site visits

- Data Mart used extensively to pull all VA workload and demographics from consistent central database
 - Albuquerque, Elmendorf, El Paso, Key West, Las Vegas, North Chicago, Travis

Travis/VA Northern CA

- Recently developed joint dialysis program
- Used cube to demonstrate reduction in costs and compliance with use of joint program

Langley/Hampton VA

- Routinely use tools to identify sharing opportunities
 - Radiology & Pathology

Others



On-Going Work

- Continue work on Staffing Data and Tools
- Continued training on tools
 - 19 Cachments already trained on purchased care cube
- Additional surveys on usability and value
- Additional clean-up & refinement of **Product Line mappings**
- Additional common vendor work
- Additional review of Zip Code to Cachment





Questions?